Abstract of the Disclosure

A method is disclosed for maintaining a volumetric gas to liquid ratio in a segmented gas/liquid flow along a reactor of monolithic catalyst beds in series. The present invention includes the steps of: initiating the segmented gas/liquid flow at a first end of the reactor by introducing feed liquid and feed gas both at a predetermined volume and a predetermined flow rate; injecting an additional amount of gas at least once into any of the spaces between catalyst beds; and combining the segments of the segmented gas/liquid flow at a second end of the reactor. The injection of gas is controlled such that the segmented gas/liquid flow can be maintained near or at the Taylor regime.